

Application Serial No. 10/581,951
Reply to Office Action of February 9, 2009

PATENT
Docket: CU-4849

REMARKS

In the Office Action, dated February 9, 2009, the Examiner states that Claims 1-3 are pending and Claims 1-3 are rejected. By the present Amendment, Applicant amends the claims.

In the Claims, please amend Claim 1. Claim 1 has been amended to clarify that the present invention is directed to a device wherein a syringe and hollow needle are used to extract an analyte by flushing a sample of interest through the stationary phase *located between the hollow needle and the syringe* which has a volume that is greater than that of the hollow needle. Support for this amendment can be found throughout the original disclosure and is made to clarify that the extraction takes place while the sample is drawn into the syringe and that the solid phase is located between the needle and the syringe. Claim 2 has also been amended to correct antecedent basis for the term "syringe body". The amendments to the claims can be viewed in the Amendments section of this paper in the Listing of Claims beginning on page 2. No new matter has been added.

In the Drawings, please amend the Figures 1 and 3a-3b. Attached after the last page of this paper are amendments to the drawings on Replacement sheets. Figure 1 has been amended to properly show the sample 16 and the space 15. Support for this amendment is found in the original disclosure, for instance in Figures 3a and 3b. No new matter has been added by way of this amendment. Figures 3a-3b have also been amended for clarity. The Examiner on page 2 of the Office Action indicated that the designations "3a" and "3b" should be of the same type font and weight as the other figure designations. The Applicant believes that the amendments to Figures 3a-3b are fully responsive to the Examiner's comments and respectfully requests that the Examiner withdraw this objection. No new matter has been added by way of the amendments to the Drawings.

In the specification, amendments are made for clarity, for instance amending "Fig." to read "Figure" and to correctly designate trademarks as such with the generic term provided therewith. No new matter has been added. The amendments to the specification can be viewed in the Amendments section beginning on page 2 of this

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paper.

Rejection of Claims 1-3 under 35 U.S.C. §112, second paragraph.

On page 4 of the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. §112, second paragraph, for being indefinite. In response, the Applicant has removed the offending terms "especially" and "for example". In addition, claim 2 has been amended to provide proper antecedent basis for the term "syringe body". The Applicant submits that the amendments to the claims are fully responsive to the rejection and respectfully requests that the Examiner withdraw the rejection of the claims.

Rejection of Claim 1 under 35 U.S.C. §102(e).

The Examiner rejected claim 1 under 35 U.S.C. §102(e) as being anticipated by Rust (U.S. 6,834,531).

The Applicant respectfully disagrees.

Claim 1 discloses a sequence of steps wherein the sample is drawn through the needle for extraction of a component and subsequently introduced into an analytical device. This is clear from the original disclosure as well. The method uses a solid phase micro extraction (SPME) wherein a component is extracted from a sample while the sample is drawn through a hollow needle into a syringe. It is well known in the art that this type of device is known as a "needle trap device". (See for instance, Pawliszyn, U.S. 2001/0032521.)

Rust on the other hand, discloses a typical gas chromatographic system and not a needle trap device. Therefore, it is not possible for the Rust disclosure to teach the method of claim 1.

The Applicant respectfully submits that because all of the features of claim 1 are not taught or disclosed by the alleged prior art, claim 1 is not anticipated thereby and is novel, and request that the Examiner withdraw this ground of rejection of claim 1.

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Rejection of Claims 1- 3 under 35 U.S.C. §103(a).

The Examiner asserts an obviousness rejection of claims 1 and 2 under 35 U.S.C. § 103(a), as being unpatentable over Abdel-Rehim (WO 03/019149). The Examiner also asserted an obviousness rejection of claims 1 and 2 under 35 U.S.C. § 103(a), as being unpatentable over Abdel-Rehim in view of Cronin (U.S. 5,064,418). Claim 3 is also rejected as unpatentable over Abdel-Rehim in view of JP 10-10104 (Takii et al.), in view of Cronin and Takii et al., in view of Reinhardt et al. (U.S. 4,849,179), and also in view of Cronin and further in view of Reinhardt et al.

The Applicant respectfully disagrees because the references, in whole or in combination do not teach, suggest or disclose the features of the claims.

Regarding the rejection of claims 1 and 2, Abdel-Rehim discloses a syringe which houses a solid phase in the syringe barrel. This is not a needle trap device because the solid phase is not located in the path of the sample being drawn into the syringe. When the sample reaches the solid phase, it is already inside the syringe barrel.

Further, in the first paragraph of the description, Abdel-Rehim discloses that in Figure 1 is shown a syringe 1 consisting of a syringe body 2 and a piston 3. Clearly, therefore, the term "syringe body," as used in the present application, is the same as the "syringe barrel" as used in the Abdel-Rehim disclosure. Respectfully, it is certainly not the piston or any other element of the syringe.

Regarding the rejection of claims 1 and 2 based on Abdel-Rehim in view of Cronin, Cronin discloses a syringe with a filter for removing particles from a sample, which is well known in the art to be completely unrelated to solid phase extraction. A person of skill in the art would not, therefore, look to the Cronin reference to cure the deficit found in Abdel-Rehim reference, neither does the Cronin reference cure the deficit.

Regarding the rejection of claim 3, the Applicant respectfully disagrees and submits that claim 3 is non-obvious. As discussed above, Abdel-Rehim discloses a

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syringe having a solid phase material located inside the syringe barrel. Therefore, it is immersed in the amount of sample liquid drawn into the syringe. It would be impossible, therefore, to apply a thermal desorption to the solid phase containing the analyte.

Takii discloses a tool for handling or transporting a gaseous sample. Takii has nothing to do with any kind of extraction technique nor with thermal desorption. Accordingly, a person of skill in the art would not look to Takii for the added feature of thermal desorption to achieve the present invention.

Reinhardt et al. discloses an apparatus for taking samples by thermal desorption. However, Reinhardt et al. does not disclose a syringe at all and thus is not a needle trap device. Moreover, as discussed above, the feature of thermal desorption would not be applicable to Abdel-Rehim, because thermal desorption is not possible in that syringe. Neither is thermal desorption possible with the Cronin device because there is no extracted analyte at all in Cronin.

None of the references, in whole or in combination, teach or suggest the combination of features of the present invention. The Applicant submits that claims 1-3 are, therefore, non-obvious and respectfully requests that the Examiner withdraw this ground of rejection of the claims.

CONCLUSION

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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Date



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